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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HO, DUC CHI

ART UNIT PAPER NUMBER

2665

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/804,929

Applicant(s)

RESHEF ET AL.

Examiner

Duc C Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-19 and 24-28 is/are allowed.
- 6) ☒ Claim(s) 1,2,7,8,11,12,14,20 and 23 is/are rejected.
- 7) ☒ Claim(s) 3-6, 9-10, 13, 15, 21, and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(b) that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 7-8, 11-12, 14, 20, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Lau et al. (US 5,893,162), hereinafter referred as Lau.

Regarding claim 1, Lau discloses a method and apparatus for allocation and management of shared memory with data in memory stored as multiple linked lists.

An ATM buffer (a manage RAM 162-fig. 1, see col. 4-line 35 to col. 5-line 13) system comprising:

a configurable buffer circuit (the RAM 162 stores a linked list structure, which contains a plurality ATM linked lists, see col. 4, lines 66-67, and fig. 2) to store a plurality of ATM linked lists;

and a linked list monitor (a flow controller 166-fig. 1) to monitor the plurality of ATM linked lists, wherein the linked list monitor is configurable to monitor different length linked lists (since the block counter for each queue is used to reference the number of blocks contained within the queue, the flow

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controller 166 is inherently capable of monitoring the length of each link, see col. 5-line 13 to col. 6-line 23).

Regarding claim 2, the Lau system is capable of inserting ATM cells into a link list, and extracting ATM cells from the link list.

Regarding claim 7, the controller 166-fig. 1, when not receiving data from the UTOPIA interface, and when not reading data from or writing data to the shared RAM 180 or writing data to the buffers, monitors the integrity of the link list structure contained in the managing RAM 162-fig. 1, col. 4, lines 63-67.

Regarding claim 8, the microprocessor 167-fig.1 is capable to have counters to count UBR ATM cells, CBR ATM cells, and a total of ATM cells stored in the RAM 162.

Regarding claim 11, the flow controller 166-fig. 1 is capable of having priority status associating with the link lists.

Regarding claim 12, Lau discloses a method and apparatus for allocation and management of shared memory with data in memory stored as multiple linked lists.

a linked list buffer system (the apparatus incorporating the link list memory management RAM-fig. 1) comprising:

a buffer having a plurality of data storage locations (a RAM 162-fig. 1 contains a plurality of queues), wherein the buffer can store a plurality of different linked list configurations (the RAM 162 stores a linked list structure, which contains a plurality ATM linked lists, see col. 4, lines 66-67, and fig. 2);

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and a management system (a flow controller 166-fig. 1) coupled to the buffer (the RAM 162-fig. 1) and comprising a plurality of counter circuits having adjustable threshold values (the RAM 162 comprises a plurality of position counter circuits-fig. 2, wherein each position counter is configurable to values such as 512 for head pointer and 122 for tail pointer to respond to a link list such as the link list #1), wherein the adjustable threshold values can be programmed to correspond to the plurality of different linked list configurations of the buffer.

Regarding claim 20, the claim has similar limitations as claim 1.

Therefore, it is rejected under Lau for the same reasons set forth in the rejection of claim 1.

Regarding claims 14, and 23, the link lists structure-fig. 2 in the manage RAM 162-fig. 1 is capable of configured #N to be equal to eight or ten.

Allowable Subject Matter

3. Claims 16-19, and 24-28 are allowed.
4. Claims 3-6, 9-10, 13, 15, 21, and 22 are objected to as being independent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McWilliams (US 2002/0031132 A1); Okuda et al. (US 5,892,762); Simpson et al. (US 6,021,115) are cited to show a ATM linked list buffer system, which is considered pertinent to the claimed invention.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner
Duc Ho
08-24-04

